

```

>>> import pandas as pd
>>> from pandas import read_csv
>>> import csv, os
>>> os.chdir('/Applications/nychatest/HUD')
>>> os.getcwd()
'/Applications/nychatest/HUD'
>>> os.listdir()
['multifamily-physical-inspection-scores-2016.xlsx', 'public-housing-physical-
inspection-scores-2016.xlsx']
>>> xlFile = 'public-housing-physical-inspection-scores-2016.xlsx'
>>> scoreDF = pd.ExcelFile(xlFile)
>>> scoreDF = scoreDF.parse('June 2016 PH deelopment')
>>> scoreDF.info()
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 7257 entries, 0 to 7256
Data columns (total 19 columns):
INSPECTION_ID      7257 non-null int64
DEVELOPMENT_ID     7257 non-null object
DEVELOPMENT_NAME   7257 non-null object
ADDRESS            6773 non-null object
CITY               7257 non-null object
CBSA_NAME          6214 non-null object
CBSA_CODE          7253 non-null float64
COUNTY_NAME       7253 non-null object
COUNTY_CODE       7253 non-null float64
STATE_NAME         7257 non-null object
STATE_CODE         7257 non-null int64
ZIP               7253 non-null float64
LATITUDE           7253 non-null float64
LONGITUDE          7253 non-null float64
LOCATION_QUALITY     7253 non-null object
PHA_CODE           7257 non-null object
PHA_NAME           7257 non-null object
INSPECTION_SCORE   7257 non-null int64
INSPECTION_DATE    7257 non-null datetime64[ns]
dtypes: datetime64[ns](1), float64(5), int64(3), object(10)
memory usage: 1.1+ MB
>>> cities = ['Manhattan', 'Brooklyn', 'Bronx', 'Queens', 'Staten Island']
>>> maskNewYork = scoreDF['CITY'].isin(cities)
>>> maskNewYork.info()
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
  File "/Users/LFH/anaconda/lib/python3.5/site-
packages/pandas/core/generic.py", line 2744, in __getattr__
    return object.__getattribute__(self, name)
AttributeError: 'Series' object has no attribute 'info'
>>> scoreDF = scoreDF[maskNewYork]
>>> scoreDF.info()
<class 'pandas.core.frame.DataFrame'>
Int64Index: 116 entries, 99 to 7247
Data columns (total 19 columns):
INSPECTION_ID      116 non-null int64
DEVELOPMENT_ID     116 non-null object
DEVELOPMENT_NAME   116 non-null object
ADDRESS            116 non-null object
CITY               116 non-null object
CBSA_NAME          116 non-null object
CBSA_CODE          116 non-null float64
COUNTY_NAME       116 non-null object
COUNTY_CODE       116 non-null float64
STATE_NAME         116 non-null object
STATE_CODE         116 non-null int64
ZIP               116 non-null float64
LATITUDE           116 non-null float64
LONGITUDE          116 non-null float64
LOCATION_QUALITY     116 non-null object
PHA_CODE           116 non-null object
PHA_NAME           116 non-null object
INSPECTION_SCORE   116 non-null int64
INSPECTION_DATE    116 non-null datetime64[ns]
dtypes: datetime64[ns](1), float64(5), int64(3), object(10)
memory usage: 18.1+ KB
>>> scoreDF.head()

```

	INSPECTION_ID	DEVELOPMENT_ID	DEVELOPMENT_NAME	ADDRESS \
99	507374	NY005000020	WILLIAMSBURG	125 Ten Eyck St
100	507385	NY005010390	PELHAM PARKWAY	2440 Boston Rd

101	507492	NY005013410	UNIVERSITY AVE REHAB	1925 University Ave
277	510796	CT066000001	SCATTERED SITES	12A Tiffany St
438	521746	KS063000001	APARTMENT TOWER	300 N 5th St

	CITY		CBSA_NAME	CBSA_CODE	\
99	Brooklyn	New York–Jersey City–White Plains, NY–NJ Metro...		35614.0	
100	Bronx	New York–Jersey City–White Plains, NY–NJ Metro...		35614.0	
101	Bronx	New York–Jersey City–White Plains, NY–NJ Metro...		35614.0	
277	Brooklyn	Worcester, MA–CT Metropolitan Statistical Area		49340.0	
438	Manhattan	Manhattan, KS Metropolitan Statistical Area		31740.0	

	COUNTY_NAME	COUNTY_CODE	STATE_NAME	STATE_CODE	ZIP	LATITUDE	\
99	Kings	47.0	NY	36	11206.0	40.710167	
100	Bronx	5.0	NY	36	10467.0	40.862386	
101	Bronx	5.0	NY	36	10453.0	40.853243	
277	Windham	15.0	CT	9	6234.0	41.797502	
438	Riley	161.0	KS	20	66502.0	39.181496	

	LONGITUDE	LOCATION_QUALITY	PHA_CODE	\
99	-73.945793	R	NY005	
100	-73.865954	R	NY005	
101	-73.912366	R	NY005	
277	-71.888193	4	CT066	
438	-96.563170	R	KS063	

	PHA_NAME	INSPECTION_SCORE	\
99	New York City Housing Authority	90	
100	New York City Housing Authority	90	
101	New York City Housing Authority	94	
277	Housing Authority of the Town of Brooklyn	93	
438	Manhattan Housing Authority	91	

	INSPECTION_DATE
99	2013-11-06
100	2013-11-18
101	2013-09-16
277	2013-09-24
438	2014-03-28

>>> # There are some states outside NY. 0.K.

```

...
>>> maskNYC = scoreDF['STATE_NAME'].str.contains('NY')
>>> scoreDF = scoreDF[maskNYC]
>>> scoreDF.info()
<class 'pandas.core.frame.DataFrame'>
Int64Index: 112 entries, 99 to 7247
Data columns (total 19 columns):
INSPECTION_ID      112 non-null int64
DEVELOPMENT_ID     112 non-null object
DEVELOPMENT_NAME   112 non-null object
ADDRESS            112 non-null object
CITY               112 non-null object
CBSA_NAME          112 non-null object
CBSA_CODE          112 non-null float64
COUNTY_NAME       112 non-null object
COUNTY_CODE       112 non-null float64
STATE_NAME         112 non-null object
STATE_CODE         112 non-null int64
ZIP               112 non-null float64
LATITUDE           112 non-null float64
LONGITUDE          112 non-null float64
LOCATION_QUALITY     112 non-null object
PHA_CODE           112 non-null object
PHA_NAME           112 non-null object
INSPECTION_SCORE   112 non-null int64
INSPECTION_DATE    112 non-null datetime64[ns]
dtypes: datetime64[ns](1), float64(5), int64(3), object(10)
memory usage: 17.5+ KB

```

```

>>> scoreDF.head()

```

	INSPECTION_ID	DEVELOPMENT_ID	DEVELOPMENT_NAME	\
99	507374	NY005000020	WILLIAMSBURG	
100	507385	NY005010390	PELHAM PARKWAY	
101	507492	NY005013410	UNIVERSITY AVE REHAB	
2135	537399	NY005011630	WYCKOFF GARDENS	
2136	537401	NY005000520	GEN. CHARLES W. BERRY	

ADDRESS	CITY	\
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99	125 Ten Eyck St	Brooklyn
100	2440 Boston Rd	Bronx
101	1925 University Ave	Bronx
2135	487 Carlton Ave Apt	Brooklyn
2136	1754 Richmond Rd	Staten Island

		CBSA_NAME	CBSA_CODE	\
99	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
100	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
101	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
2135	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
2136	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	

	COUNTY_NAME	COUNTY_CODE	STATE_NAME	STATE_CODE	ZIP	LATITUDE	\
99	Kings	47.0	NY	36	11206.0	40.710167	
100	Bronx	5.0	NY	36	10467.0	40.862386	
101	Bronx	5.0	NY	36	10453.0	40.853243	
2135	Kings	47.0	NY	36	11238.0	40.684186	
2136	Richmond	85.0	NY	36	10306.0	40.587441	

	LONGITUDE	LOCATION_QUALITY	PHA_CODE	PHA_NAME	\
99	-73.945793	R	NY005	New York City Housing Authority	
100	-73.865954	R	NY005	New York City Housing Authority	
101	-73.912366	R	NY005	New York City Housing Authority	
2135	-73.971034	4	NY005	New York City Housing Authority	
2136	-74.103256	R	NY005	New York City Housing Authority	

	INSPECTION_SCORE	INSPECTION_DATE
99	90	2013-11-06
100	90	2013-11-18
101	94	2013-09-16
2135	81	2015-01-06
2136	86	2015-03-23

>>> # There are 112 entries from a city/state search. Do a PHA_NAME search to confirm entry count.

...

```
>>> nychaDF = pd.ExcelFile(xlFile)
>>> nychaDF = nychaDF.parse('June 2016 PH deelopment')
>>> nychaDF.info()
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 7257 entries, 0 to 7256
Data columns (total 19 columns):
INSPECTION_ID      7257 non-null int64
DEVELOPMENT_ID    7257 non-null object
DEVELOPMENT_NAME   7257 non-null object
ADDRESS            6773 non-null object
CITY               7257 non-null object
CBSA_NAME          6214 non-null object
CBSA_CODE          7253 non-null float64
COUNTY_NAME       7253 non-null object
COUNTY_CODE       7253 non-null float64
STATE_NAME         7257 non-null object
STATE_CODE         7257 non-null int64
ZIP               7253 non-null float64
LATITUDE           7253 non-null float64
LONGITUDE          7253 non-null float64
LOCATION_QUALITY     7253 non-null object
PHA_CODE           7257 non-null object
PHA_NAME           7257 non-null object
INSPECTION_SCORE   7257 non-null int64
INSPECTION_DATE    7257 non-null datetime64[ns]
dtypes: datetime64[ns](1), float64(5), int64(3), object(10)
memory usage: 1.1+ MB
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```
>>> maskNYCHA = nychaDF['PHA_NAME'].str.contains('New York City Housing Authority')
```

```
>>> nychaDF = nychaDF[maskNYCHA]
```

```
>>> nychaDF.info()
<class 'pandas.core.frame.DataFrame'>
Int64Index: 159 entries, 99 to 7247
Data columns (total 19 columns):
INSPECTION_ID      159 non-null int64
DEVELOPMENT_ID    159 non-null object
DEVELOPMENT_NAME   159 non-null object
ADDRESS            158 non-null object
CITY               159 non-null object
CBSA_NAME          159 non-null object
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CBSA_CODE          159 non-null float64
COUNTY_NAME       159 non-null object
COUNTY_CODE       159 non-null float64
STATE_NAME         159 non-null object
STATE_CODE         159 non-null int64
ZIP                159 non-null float64
LATITUDE           159 non-null float64
LONGITUDE          159 non-null float64
LOCATION_QUALITY     159 non-null object
PHA_CODE           159 non-null object
PHA_NAME           159 non-null object
INSPECTION_SCORE   159 non-null int64
INSPECTION_DATE    159 non-null datetime64[ns]
dtypes: datetime64[ns](1), float64(5), int64(3), object(10)
memory usage: 24.8+ KB
>>> # 159 entry count by NYCHA. Let's see why. What cities are included ?
...
>>> cityDistro = nychaDF['CITY'].value_counts()
>>> cityDistro
Brooklyn          51
New York           46
Bronx              40
Queens             14
Staten Island      6
Manhattan           1
NEW YORK           1
Name: CITY, dtype: int64
>>> # Not very consistent use of city names. We will go with this list.
...
>>> cols = ['INSPECTION_SCORE']
>>> nychaDF[cols] = nychaDF[nychaDF[cols] > 60][cols]
>>> nychaDF.info()
<class 'pandas.core.frame.DataFrame'>
Int64Index: 159 entries, 99 to 7247
Data columns (total 19 columns):
INSPECTION_ID      159 non-null int64
DEVELOPMENT_ID     159 non-null object
DEVELOPMENT_NAME    159 non-null object
ADDRESS            158 non-null object
CITY               159 non-null object
CBSA_NAME          159 non-null object
CBSA_CODE          159 non-null float64
COUNTY_NAME       159 non-null object
COUNTY_CODE       159 non-null float64
STATE_NAME         159 non-null object
STATE_CODE         159 non-null int64
ZIP                159 non-null float64
LATITUDE           159 non-null float64
LONGITUDE          159 non-null float64
LOCATION_QUALITY     159 non-null object
PHA_CODE           159 non-null object
PHA_NAME           159 non-null object
INSPECTION_SCORE   136 non-null float64
INSPECTION_DATE    159 non-null datetime64[ns]
dtypes: datetime64[ns](1), float64(6), int64(2), object(10)
memory usage: 24.8+ KB
>>> # That did nothing.
...
>>> maskFail = nychaDF['INSPECTION_SCORE'] < 60
>>> nychaDF = nychaDF[maskFail]
>>> nychaDF.info()
<class 'pandas.core.frame.DataFrame'>
Int64Index: 0 entries
Data columns (total 19 columns):
INSPECTION_ID      0 non-null int64
DEVELOPMENT_ID     0 non-null object
DEVELOPMENT_NAME    0 non-null object
ADDRESS            0 non-null object
CITY               0 non-null object
CBSA_NAME          0 non-null object
CBSA_CODE          0 non-null float64
COUNTY_NAME       0 non-null object
COUNTY_CODE       0 non-null float64
STATE_NAME         0 non-null object
STATE_CODE         0 non-null int64
ZIP                0 non-null float64

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LATITUDE          0 non-null float64
LONGITUDE          0 non-null float64
LOCATION_QUALITY    0 non-null object
PHA_CODE           0 non-null object
PHA_NAME           0 non-null object
INSPECTION_SCORE   0 non-null float64
INSPECTION_DATE    0 non-null datetime64[ns]
dtypes: datetime64[ns](1), float64(6), int64(2), object(10)
memory usage: 0.0+ bytes
>>> # Grrr.
...
>>> nychaDF = pd.ExcelFile(xlFile)
>>> nychaDF = nychaDF.parse('June 2016 PH deelopment')
>>> nychaDF.info()
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 7257 entries, 0 to 7256
Data columns (total 19 columns):
INSPECTION_ID      7257 non-null int64
DEVELOPMENT_ID     7257 non-null object
DEVELOPMENT_NAME    7257 non-null object
ADDRESS            6773 non-null object
CITY               7257 non-null object
CBSA_NAME           6214 non-null object
CBSA_CODE           7253 non-null float64
COUNTY_NAME        7253 non-null object
COUNTY_CODE        7253 non-null float64
STATE_NAME          7257 non-null object
STATE_CODE          7257 non-null int64
ZIP                7253 non-null float64
LATITUDE            7253 non-null float64
LONGITUDE           7253 non-null float64
LOCATION_QUALITY      7253 non-null object
PHA_CODE            7257 non-null object
PHA_NAME            7257 non-null object
INSPECTION_SCORE     7257 non-null int64
INSPECTION_DATE      7257 non-null datetime64[ns]
dtypes: datetime64[ns](1), float64(5), int64(3), object(10)
memory usage: 1.1+ MB
>>> maskNYCHA = nychaDF['PHA_NAME'].str.contains('New York City Housing
Authority')
>>> nychaDF = nychaDF[maskNYCHA]
>>> nychaDF.info()
<class 'pandas.core.frame.DataFrame'>
Int64Index: 159 entries, 99 to 7247
Data columns (total 19 columns):
INSPECTION_ID      159 non-null int64
DEVELOPMENT_ID     159 non-null object
DEVELOPMENT_NAME    159 non-null object
ADDRESS            158 non-null object
CITY               159 non-null object
CBSA_NAME           159 non-null object
CBSA_CODE           159 non-null float64
COUNTY_NAME        159 non-null object
COUNTY_CODE        159 non-null float64
STATE_NAME          159 non-null object
STATE_CODE          159 non-null int64
ZIP                159 non-null float64
LATITUDE            159 non-null float64
LONGITUDE           159 non-null float64
LOCATION_QUALITY      159 non-null object
PHA_CODE            159 non-null object
PHA_NAME            159 non-null object
INSPECTION_SCORE     159 non-null int64
INSPECTION_DATE      159 non-null datetime64[ns]
dtypes: datetime64[ns](1), float64(5), int64(3), object(10)
memory usage: 24.8+ KB
>>> nychaFail = nychaDF.sort('INSPECTION_SCORE', ascending=False)
__main__:1: FutureWarning: sort(columns=....) is deprecated, use
sort_values(by=.....)
>>> nychaFail.info()
<class 'pandas.core.frame.DataFrame'>
Int64Index: 159 entries, 2139 to 6153
Data columns (total 19 columns):
INSPECTION_ID      159 non-null int64
DEVELOPMENT_ID     159 non-null object
DEVELOPMENT_NAME    159 non-null object

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```
ADDRESS          158 non-null object
CITY              159 non-null object
CBSA_NAME         159 non-null object
CBSA_CODE         159 non-null float64
COUNTY_NAME     159 non-null object
COUNTY_CODE     159 non-null float64
STATE_NAME       159 non-null object
STATE_CODE       159 non-null int64
ZIP              159 non-null float64
LATITUDE         159 non-null float64
LONGITUDE        159 non-null float64
LOCATION_QUALITY   159 non-null object
PHA_CODE         159 non-null object
PHA_NAME         159 non-null object
INSPECTION_SCORE 159 non-null int64
INSPECTION_DATE  159 non-null datetime64[ns]
dtypes: datetime64[ns](1), float64(5), int64(3), object(10)
memory usage: 24.8+ KB
>>> nychaFail.head()
```

	INSPECTION_ID	DEVELOPMENT_ID	DEVELOPMENT_NAME	ADDRESS	\
2139	537407	NY005013590	LOWER EAST SIDE III	154 W 84th St	
2155	537462	NY005021400	INDEPENDENCE	130 Clymer St Apt	
2147	537438	NY005011680	LANGSTON HUGHES APTS	393 Powell St	
101	507492	NY005013410	UNIVERSITY AVE REHAB	1925 University Ave	
2144	537429	NY005012210	STUYVESANT GARDENS I	150 Malcolm X Blvd	

	CITY		CBSA_NAME	CBSA_CODE	\
2139	New York	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
2155	Brooklyn	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
2147	Brooklyn	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
101	Bronx	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
2144	Brooklyn	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	

	COUNTY_NAME	COUNTY_CODE	STATE_NAME	STATE_CODE	ZIP	LATITUDE	\
2139	New York	61.0	NY	36	10024.0	40.785736	
2155	Kings	47.0	NY	36	11249.0	40.705907	
2147	Kings	47.0	NY	36	11212.0	40.664412	
101	Bronx	5.0	NY	36	10453.0	40.853243	
2144	Kings	47.0	NY	36	11221.0	40.687762	

	LONGITUDE	LOCATION_QUALITY	PHA_CODE	PHA_NAME	\
2139	-73.974924		R NY005	New York City Housing Authority	
2155	-73.964634		4 NY005	New York City Housing Authority	
2147	-73.902400		R NY005	New York City Housing Authority	
101	-73.912366		R NY005	New York City Housing Authority	
2144	-73.930249		R NY005	New York City Housing Authority	

	INSPECTION_SCORE	INSPECTION_DATE
2139	97	2015-02-09
2155	96	2015-01-21
2147	94	2015-01-12
101	94	2013-09-16
2144	94	2015-01-20

```
>>> nychaFail.tail()
INSPECTION_ID DEVELOPMENT_ID DEVELOPMENT_NAME ADDRESS \
5270 559662 NY005020810 MANHATTANVILLE 1430 Amsterdam Ave
5231 558193 NY005011310 TOMPKINS 760 Park Ave
5211 558170 NY005010360 NOSTRAND 2263 Batchelder St
5191 558150 NY005001210 MOTT HAVEN 383 E 141st St Apt
6153 565962 NY005000240 LESTER W. PATTERSON 281 E 143rd St
```

	CITY		CBSA_NAME	CBSA_CODE	\
5270	New York	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
5231	Brooklyn	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
5211	Brooklyn	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
5191	Bronx	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
6153	Bronx	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	

	COUNTY_NAME	COUNTY_CODE	STATE_NAME	STATE_CODE	ZIP	LATITUDE	\
5270	New York	61.0	NY	36	10027.0	40.816486	
5231	Kings	47.0	NY	36	11206.0	40.697965	
5211	Kings	47.0	NY	36	11229.0	40.597321	
5191	Bronx	5.0	NY	36	10454.0	40.811491	
6153	Bronx	5.0	NY	36	10451.0	40.814665	

	LONGITUDE	LOCATION_QUALITY	PHA_CODE	PHA_NAME	\
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5270	-73.954260	R	NY005	New York City Housing Authority
5231	-73.944942	R	NY005	New York City Housing Authority
5211	-73.938161	R	NY005	New York City Housing Authority
5191	-73.922498	4	NY005	New York City Housing Authority
6153	-73.924180	R	NY005	New York City Housing Authority

	INSPECTION_SCORE	INSPECTION_DATE
5270	49	2015-11-30
5231	45	2015-12-15
5211	43	2015-12-24
5191	42	2015-11-16
6153	33	2016-02-22

```
>>> nychaFail.tail(10)
```

	INSPECTION_ID	DEVELOPMENT_ID	DEVELOPMENT_NAME	ADDRESS	\
5193	558152	NY005001360	ROBERT FULTON	418 W 17th St	
5192	558151	NY005001230	DE WITT CLINTON	1760 Lexington Ave	
5272	559664	NY005020830	MARLBORO	29 Avenue W	
5229	558191	NY005011110	PS 139 RENAISSANCE	120 W 140th St	
5268	559660	NY005011720	GRAVESEND	2950 W 35th St	
5270	559662	NY005020810	MANHATTANVILLE	1430 Amsterdam Ave	
5231	558193	NY005011310	TOMPKINS	760 Park Ave	
5211	558170	NY005010360	NOSTRAND	2263 Batchelder St	
5191	558150	NY005001210	MOTT HAVEN	383 E 141st St Apt	
6153	565962	NY005000240	LESTER W. PATTERSON	281 E 143rd St	

	CITY		CBSA_NAME	CBSA_CODE	\
5193	New York	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
5192	New York	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
5272	Brooklyn	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
5229	New York	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
5268	Brooklyn	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
5270	New York	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
5231	Brooklyn	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
5211	Brooklyn	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
5191	Bronx	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
6153	Bronx	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	

	COUNTY_NAME	COUNTY_CODE	STATE_NAME	STATE_CODE	ZIP	LATITUDE	\
5193	New York	61.0	NY	36	10011.0	40.742983	
5192	New York	61.0	NY	36	10029.0	40.794331	
5272	Kings	47.0	NY	36	11223.0	40.591368	
5229	New York	61.0	NY	36	10030.0	40.817457	
5268	Kings	47.0	NY	36	11224.0	40.574198	
5270	New York	61.0	NY	36	10027.0	40.816486	
5231	Kings	47.0	NY	36	11206.0	40.697965	
5211	Kings	47.0	NY	36	11229.0	40.597321	
5191	Bronx	5.0	NY	36	10454.0	40.811491	
6153	Bronx	5.0	NY	36	10451.0	40.814665	

	LONGITUDE	LOCATION_QUALITY	PHA_CODE	PHA_NAME	\
5193	-74.004700	R	NY005	New York City Housing Authority	
5192	-73.944991	R	NY005	New York City Housing Authority	
5272	-73.983861	R	NY005	New York City Housing Authority	
5229	-73.939407	R	NY005	New York City Housing Authority	
5268	-74.000773	R	NY005	New York City Housing Authority	
5270	-73.954260	R	NY005	New York City Housing Authority	
5231	-73.944942	R	NY005	New York City Housing Authority	
5211	-73.938161	R	NY005	New York City Housing Authority	
5191	-73.922498	4	NY005	New York City Housing Authority	
6153	-73.924180	R	NY005	New York City Housing Authority	

	INSPECTION_SCORE	INSPECTION_DATE
5193	55	2015-11-17
5192	55	2015-11-25
5272	54	2015-11-16
5229	54	2015-12-08
5268	52	2015-11-16
5270	49	2015-11-30
5231	45	2015-12-15
5211	43	2015-12-24
5191	42	2015-11-16
6153	33	2016-02-22

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>>> nychaFail.tail(15)
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	INSPECTION_ID	DEVELOPMENT_ID	DEVELOPMENT_NAME	\
5218	558177	NY005010670	JUSTICE SONIA SOTOMAYOR HOUSES	
5194	558153	NY005001490	POLO GROUNDS TOWERS	

5199	558158	NY005005140	WHITMAN
5253	558224	NY005020950	LINDEN
5854	565547	NY005013420	UNION AVE/E 163RD SITE 5
5193	558152	NY005001360	ROBERT FULTON
5192	558151	NY005001230	DE WITT CLINTON
5272	559664	NY005020830	MARLBORO
5229	558191	NY005011110	PS 139 RENAISSANCE
5268	559660	NY005011720	GRAVESEND
5270	559662	NY005020810	MANHATTANVILLE
5231	558193	NY005011310	TOMPKINS
5211	558170	NY005010360	NOSTRAND
5191	558150	NY005001210	MOTT HAVEN
6153	565962	NY005000240	LESTER W. PATTERSON

	ADDRESS	CITY \
5218	2125 Glebe Ave	Bronx
5194	2931 8th Ave	New York
5199	117 N Oxford Walk	Brooklyn
5253	215 Cozine Ave	Brooklyn
5854	950 Union Ave	Bronx
5193	418 W 17th St	New York
5192	1760 Lexington Ave	New York
5272	29 Avenue W	Brooklyn
5229	120 W 140th St	New York
5268	2950 W 35th St	Brooklyn
5270	1430 Amsterdam Ave	New York
5231	760 Park Ave	Brooklyn
5211	2263 Batchelder St	Brooklyn
5191	383 E 141st St Apt	Bronx
6153	281 E 143rd St	Bronx

		CBSA_NAME	CBSA_CODE \
5218	New York-Jersey City-White Plains,	NY-NJ Metro...	35614.0
5194	New York-Jersey City-White Plains,	NY-NJ Metro...	35614.0
5199	New York-Jersey City-White Plains,	NY-NJ Metro...	35614.0
5253	New York-Jersey City-White Plains,	NY-NJ Metro...	35614.0
5854	New York-Jersey City-White Plains,	NY-NJ Metro...	35614.0
5193	New York-Jersey City-White Plains,	NY-NJ Metro...	35614.0
5192	New York-Jersey City-White Plains,	NY-NJ Metro...	35614.0
5272	New York-Jersey City-White Plains,	NY-NJ Metro...	35614.0
5229	New York-Jersey City-White Plains,	NY-NJ Metro...	35614.0
5268	New York-Jersey City-White Plains,	NY-NJ Metro...	35614.0
5270	New York-Jersey City-White Plains,	NY-NJ Metro...	35614.0
5231	New York-Jersey City-White Plains,	NY-NJ Metro...	35614.0
5211	New York-Jersey City-White Plains,	NY-NJ Metro...	35614.0
5191	New York-Jersey City-White Plains,	NY-NJ Metro...	35614.0
6153	New York-Jersey City-White Plains,	NY-NJ Metro...	35614.0

	COUNTY_NAME	COUNTY_CODE	STATE_NAME	STATE_CODE	ZIP	LATITUDE \
5218	Bronx	5.0	NY	36	10462.0	40.835042
5194	New York	61.0	NY	36	10039.0	40.830670
5199	Kings	47.0	NY	36	11205.0	40.694668
5253	Kings	47.0	NY	36	11207.0	40.655646
5854	Bronx	5.0	NY	36	10459.0	40.822692
5193	New York	61.0	NY	36	10011.0	40.742983
5192	New York	61.0	NY	36	10029.0	40.794331
5272	Kings	47.0	NY	36	11223.0	40.591368
5229	New York	61.0	NY	36	10030.0	40.817457
5268	Kings	47.0	NY	36	11224.0	40.574198
5270	New York	61.0	NY	36	10027.0	40.816486
5231	Kings	47.0	NY	36	11206.0	40.697965
5211	Kings	47.0	NY	36	11229.0	40.597321
5191	Bronx	5.0	NY	36	10454.0	40.811491
6153	Bronx	5.0	NY	36	10451.0	40.814665

	LONGITUDE	LOCATION_QUALITY	PHA_CODE	PHA_NAME \
5218	-73.850561	R	NY005	New York City Housing Authority
5194	-73.936477	R	NY005	New York City Housing Authority
5199	-73.975223	R	NY005	New York City Housing Authority
5253	-73.884266	R	NY005	New York City Housing Authority
5854	-73.901647	R	NY005	New York City Housing Authority
5193	-74.004700	R	NY005	New York City Housing Authority
5192	-73.944991	R	NY005	New York City Housing Authority
5272	-73.983861	R	NY005	New York City Housing Authority
5229	-73.939407	R	NY005	New York City Housing Authority
5268	-74.000773	R	NY005	New York City Housing Authority

5270	-73.954260	R	NY005	New York City Housing Authority
5231	-73.944942	R	NY005	New York City Housing Authority
5211	-73.938161	R	NY005	New York City Housing Authority
5191	-73.922498	4	NY005	New York City Housing Authority
6153	-73.924180	R	NY005	New York City Housing Authority

	INSPECTION_SCORE	INSPECTION_DATE
5218	57	2015-10-27
5194	57	2015-09-21
5199	56	2015-11-09
5253	56	2015-12-16
5854	56	2015-12-08
5193	55	2015-11-17
5192	55	2015-11-25
5272	54	2015-11-16
5229	54	2015-12-08
5268	52	2015-11-16
5270	49	2015-11-30
5231	45	2015-12-15
5211	43	2015-12-24
5191	42	2015-11-16
6153	33	2016-02-22

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>>> nychaFail.tail(20)
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	INSPECTION_ID	DEVELOPMENT_ID	DEVELOPMENT_NAME \
5250	558218	NY005020930	SAINT MARY'S PARK
5180	558138	NY005000650	BREVOORT
5186	558145	NY005000790	RED HOOK II
5227	558189	NY005010980	OCEAN BAY (BAYSIDE)
5179	558137	NY005000610	VAN DYKE I
5218	558177	NY005010670	JUSTICE SONIA SOTOMAYOR HOUSES
5194	558153	NY005001490	POLO GROUNDS TOWERS
5199	558158	NY005005140	WHITMAN
5253	558224	NY005020950	LINDEN
5854	565547	NY005013420	UNION AVE/E 163RD SITE 5
5193	558152	NY005001360	ROBERT FULTON
5192	558151	NY005001230	DE WITT CLINTON
5272	559664	NY005020830	MARLBORO
5229	558191	NY005011110	PS 139 RENAISSANCE
5268	559660	NY005011720	GRAVESEND
5270	559662	NY005020810	MANHATTANVILLE
5231	558193	NY005011310	TOMPKINS
5211	558170	NY005010360	NOSTRAND
5191	558150	NY005001210	MOTT HAVEN
6153	565962	NY005000240	LESTER W. PATTERSON

	ADDRESS	CITY \
5250	550 Cauldwell Ave	Bronx
5180	1839 Fulton St	Brooklyn
5186	82 Dwight St	Brooklyn
5227	441 Beach 51st St	Queens
5179	414 Sutter Ave	Brooklyn
5218	2125 Glebe Ave	Bronx
5194	2931 8th Ave	New York
5199	117 N Oxford Walk	Brooklyn
5253	215 Cozine Ave	Brooklyn
5854	950 Union Ave	Bronx
5193	418 W 17th St	New York
5192	1760 Lexington Ave	New York
5272	29 Avenue W	Brooklyn
5229	120 W 140th St	New York
5268	2950 W 35th St	Brooklyn
5270	1430 Amsterdam Ave	New York
5231	760 Park Ave	Brooklyn
5211	2263 Batchelder St	Brooklyn
5191	383 E 141st St Apt	Bronx
6153	281 E 143rd St	Bronx

	CBSA_NAME	CBSA_CODE \
5250	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5180	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5186	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5227	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5179	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5218	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5194	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5199	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0

5253	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5854	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5193	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5192	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5272	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5229	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5268	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5270	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5231	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5211	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5191	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
6153	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0

	COUNTY_NAME	COUNTY_CODE	STATE_NAME	STATE_CODE	ZIP	LATITUDE	\
5250	Bronx	5.0	NY	36	10455.0	40.814739	
5180	Kings	47.0	NY	36	11233.0	40.679268	
5186	Kings	47.0	NY	36	11231.0	40.676398	
5227	Queens	81.0	NY	36	11691.0	40.596459	
5179	Kings	47.0	NY	36	11212.0	40.667951	
5218	Bronx	5.0	NY	36	10462.0	40.835042	
5194	New York	61.0	NY	36	10039.0	40.830670	
5199	Kings	47.0	NY	36	11205.0	40.694668	
5253	Kings	47.0	NY	36	11207.0	40.655646	
5854	Bronx	5.0	NY	36	10459.0	40.822692	
5193	New York	61.0	NY	36	10011.0	40.742983	
5192	New York	61.0	NY	36	10029.0	40.794331	
5272	Kings	47.0	NY	36	11223.0	40.591368	
5229	New York	61.0	NY	36	10030.0	40.817457	
5268	Kings	47.0	NY	36	11224.0	40.574198	
5270	New York	61.0	NY	36	10027.0	40.816486	
5231	Kings	47.0	NY	36	11206.0	40.697965	
5211	Kings	47.0	NY	36	11229.0	40.597321	
5191	Bronx	5.0	NY	36	10454.0	40.811491	
6153	Bronx	5.0	NY	36	10451.0	40.814665	

	LONGITUDE	LOCATION_QUALITY	PHA_CODE	PHA_NAME	\
5250	-73.910338	R	NY005	New York City Housing Authority	
5180	-73.925917	R	NY005	New York City Housing Authority	
5186	-74.008879	R	NY005	New York City Housing Authority	
5227	-73.782176	R	NY005	New York City Housing Authority	
5179	-73.903626	R	NY005	New York City Housing Authority	
5218	-73.850561	R	NY005	New York City Housing Authority	
5194	-73.936477	R	NY005	New York City Housing Authority	
5199	-73.975223	R	NY005	New York City Housing Authority	
5253	-73.884266	R	NY005	New York City Housing Authority	
5854	-73.901647	R	NY005	New York City Housing Authority	
5193	-74.004700	R	NY005	New York City Housing Authority	
5192	-73.944991	R	NY005	New York City Housing Authority	
5272	-73.983861	R	NY005	New York City Housing Authority	
5229	-73.939407	R	NY005	New York City Housing Authority	
5268	-74.000773	R	NY005	New York City Housing Authority	
5270	-73.954260	R	NY005	New York City Housing Authority	
5231	-73.944942	R	NY005	New York City Housing Authority	
5211	-73.938161	R	NY005	New York City Housing Authority	
5191	-73.922498	4	NY005	New York City Housing Authority	
6153	-73.924180	R	NY005	New York City Housing Authority	

	INSPECTION_SCORE	INSPECTION_DATE
5250	59	2015-11-10
5180	58	2015-11-30
5186	58	2015-12-15
5227	58	2015-12-08
5179	57	2015-11-16
5218	57	2015-10-27
5194	57	2015-09-21
5199	56	2015-11-09
5253	56	2015-12-16
5854	56	2015-12-08
5193	55	2015-11-17
5192	55	2015-11-25
5272	54	2015-11-16
5229	54	2015-12-08
5268	52	2015-11-16
5270	49	2015-11-30
5231	45	2015-12-15
5211	43	2015-12-24

5191 42 2015-11-16
6153 33 2016-02-22

>>> nychaFail.tail(25)

	INSPECTION_ID	DEVELOPMENT_ID	DEVELOPMENT_NAME	\
5233	558195	NY005011270	W.S.U.R. SITES A, B & C	
5244	558211	NY005012110	DR. RAMON E. BETANCES I	
5273	559665	NY005011860	LEWIS H. LATIMER GARDENS	
5228	558190	NY005011000	SAMUEL GOMPERS	
5252	558221	NY005012410	U.P.A.C.A. URA (SITE 5)	
5250	558218	NY005020930	SAINT MARY'S PARK	
5180	558138	NY005000650	BREVOORT	
5186	558145	NY005000790	RED HOOK II	
5227	558189	NY005010980	OCEAN BAY (BAYSIDE)	
5179	558137	NY005000610	VAN DYKE I	
5218	558177	NY005010670	JUSTICE SONIA SOTOMAYOR HOUSES	
5194	558153	NY005001490	POLO GROUNDS TOWERS	
5199	558158	NY005005140	WHITMAN	
5253	558224	NY005020950	LINDEN	
5854	565547	NY005013420	UNION AVE/E 163RD SITE 5	
5193	558152	NY005001360	ROBERT FULTON	
5192	558151	NY005001230	DE WITT CLINTON	
5272	559664	NY005020830	MARLBORO	
5229	558191	NY005011110	PS 139 RENAISSANCE	
5268	559660	NY005011720	GRAVESEND	
5270	559662	NY005020810	MANHATTANVILLE	
5231	558193	NY005011310	TOMPKINS	
5211	558170	NY005010360	NOSTRAND	
5191	558150	NY005001210	MOTT HAVEN	
6153	565962	NY005000240	LESTER W. PATTERSON	

	ADDRESS	CITY	\
5233	201 W 93rd St	New York	
5244	400 Brook Ave	Bronx	
5273	3425 Linden Pl Apt	Queens	
5228	100 Pitt St	New York	
5252	110 E 129th St Apt	New York	
5250	550 Cauldwell Ave	Bronx	
5180	1839 Fulton St	Brooklyn	
5186	82 Dwight St	Brooklyn	
5227	441 Beach 51st St	Queens	
5179	414 Sutter Ave	Brooklyn	
5218	2125 Glebe Ave	Bronx	
5194	2931 8th Ave	New York	
5199	117 N Oxford Walk	Brooklyn	
5253	215 Cozine Ave	Brooklyn	
5854	950 Union Ave	Bronx	
5193	418 W 17th St	New York	
5192	1760 Lexington Ave	New York	
5272	29 Avenue W	Brooklyn	
5229	120 W 140th St	New York	
5268	2950 W 35th St	Brooklyn	
5270	1430 Amsterdam Ave	New York	
5231	760 Park Ave	Brooklyn	
5211	2263 Batchelder St	Brooklyn	
5191	383 E 141st St Apt	Bronx	
6153	281 E 143rd St	Bronx	

	CBSA_NAME	CBSA_CODE	\
5233	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0	
5244	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0	
5273	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0	
5228	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0	
5252	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0	
5250	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0	
5180	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0	
5186	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0	
5227	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0	
5179	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0	
5218	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0	
5194	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0	
5199	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0	
5253	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0	
5854	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0	
5193	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0	
5192	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0	
5272	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0	

5229	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5268	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5270	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5231	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5211	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5191	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
6153	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0

	COUNTY_NAME	COUNTY_CODE	STATE_NAME	STATE_CODE	ZIP	LATITUDE	\
5233	New York	61.0	NY	36	10025.0	40.792453	
5244	Bronx	5.0	NY	36	10454.0	40.811429	
5273	Queens	81.0	NY	36	11354.0	40.765376	
5228	New York	61.0	NY	36	10002.0	40.718867	
5252	New York	61.0	NY	36	10035.0	40.807228	
5250	Bronx	5.0	NY	36	10455.0	40.814739	
5180	Kings	47.0	NY	36	11233.0	40.679268	
5186	Kings	47.0	NY	36	11231.0	40.676398	
5227	Queens	81.0	NY	36	11691.0	40.596459	
5179	Kings	47.0	NY	36	11212.0	40.667951	
5218	Bronx	5.0	NY	36	10462.0	40.835042	
5194	New York	61.0	NY	36	10039.0	40.830670	
5199	Kings	47.0	NY	36	11205.0	40.694668	
5253	Kings	47.0	NY	36	11207.0	40.655646	
5854	Bronx	5.0	NY	36	10459.0	40.822692	
5193	New York	61.0	NY	36	10011.0	40.742983	
5192	New York	61.0	NY	36	10029.0	40.794331	
5272	Kings	47.0	NY	36	11223.0	40.591368	
5229	New York	61.0	NY	36	10030.0	40.817457	
5268	Kings	47.0	NY	36	11224.0	40.574198	
5270	New York	61.0	NY	36	10027.0	40.816486	
5231	Kings	47.0	NY	36	11206.0	40.697965	
5211	Kings	47.0	NY	36	11229.0	40.597321	
5191	Bronx	5.0	NY	36	10454.0	40.811491	
6153	Bronx	5.0	NY	36	10451.0	40.814665	

	LONGITUDE	LOCATION_QUALITY	PHA_CODE	PHA_NAME	\
5233	-73.972102	R	NY005	New York City Housing Authority	
5244	-73.916743	R	NY005	New York City Housing Authority	
5273	-73.830914	4	NY005	New York City Housing Authority	
5228	-73.981979	R	NY005	New York City Housing Authority	
5252	-73.936347	4	NY005	New York City Housing Authority	
5250	-73.910338	R	NY005	New York City Housing Authority	
5180	-73.925917	R	NY005	New York City Housing Authority	
5186	-74.008879	R	NY005	New York City Housing Authority	
5227	-73.782176	R	NY005	New York City Housing Authority	
5179	-73.903626	R	NY005	New York City Housing Authority	
5218	-73.850561	R	NY005	New York City Housing Authority	
5194	-73.936477	R	NY005	New York City Housing Authority	
5199	-73.975223	R	NY005	New York City Housing Authority	
5253	-73.884266	R	NY005	New York City Housing Authority	
5854	-73.901647	R	NY005	New York City Housing Authority	
5193	-74.004700	R	NY005	New York City Housing Authority	
5192	-73.944991	R	NY005	New York City Housing Authority	
5272	-73.983861	R	NY005	New York City Housing Authority	
5229	-73.939407	R	NY005	New York City Housing Authority	
5268	-74.000773	R	NY005	New York City Housing Authority	
5270	-73.954260	R	NY005	New York City Housing Authority	
5231	-73.944942	R	NY005	New York City Housing Authority	
5211	-73.938161	R	NY005	New York City Housing Authority	
5191	-73.922498	4	NY005	New York City Housing Authority	
6153	-73.924180	R	NY005	New York City Housing Authority	

	INSPECTION_SCORE	INSPECTION_DATE
5233	61	2015-12-14
5244	61	2015-11-09
5273	60	2015-10-19
5228	60	2015-12-08
5252	60	2015-10-15
5250	59	2015-11-10
5180	58	2015-11-30
5186	58	2015-12-15
5227	58	2015-12-08
5179	57	2015-11-16
5218	57	2015-10-27
5194	57	2015-09-21
5199	56	2015-11-09

5253	56	2015-12-16
5854	56	2015-12-08
5193	55	2015-11-17
5192	55	2015-11-25
5272	54	2015-11-16
5229	54	2015-12-08
5268	52	2015-11-16
5270	49	2015-11-30
5231	45	2015-12-15
5211	43	2015-12-24
5191	42	2015-11-16
6153	33	2016-02-22

>>> nychaFail.tail(20)

	INSPECTION_ID	DEVELOPMENT_ID	DEVELOPMENT_NAME \
5250	558218	NY005020930	SAINT MARY'S PARK
5180	558138	NY005000650	BREVOORT
5186	558145	NY005000790	RED HOOK II
5227	558189	NY005010980	OCEAN BAY (BAYSIDE)
5179	558137	NY005000610	VAN DYKE I
5218	558177	NY005010670	JUSTICE SONIA SOTOMAYOR HOUSES
5194	558153	NY005001490	POLO GROUNDS TOWERS
5199	558158	NY005005140	WHITMAN
5253	558224	NY005020950	LINDEN
5854	565547	NY005013420	UNION AVE/E 163RD SITE 5
5193	558152	NY005001360	ROBERT FULTON
5192	558151	NY005001230	DE WITT CLINTON
5272	559664	NY005020830	MARLBORO
5229	558191	NY005011110	PS 139 RENAISSANCE
5268	559660	NY005011720	GRAVESEND
5270	559662	NY005020810	MANHATTANVILLE
5231	558193	NY005011310	TOMPKINS
5211	558170	NY005010360	NOSTRAND
5191	558150	NY005001210	MOTT HAVEN
6153	565962	NY005000240	LESTER W. PATTERSON

	ADDRESS	CITY \
5250	550 Cauldwell Ave	Bronx
5180	1839 Fulton St	Brooklyn
5186	82 Dwight St	Brooklyn
5227	441 Beach 51st St	Queens
5179	414 Sutter Ave	Brooklyn
5218	2125 Glebe Ave	Bronx
5194	2931 8th Ave	New York
5199	117 N Oxford Walk	Brooklyn
5253	215 Cozine Ave	Brooklyn
5854	950 Union Ave	Bronx
5193	418 W 17th St	New York
5192	1760 Lexington Ave	New York
5272	29 Avenue W	Brooklyn
5229	120 W 140th St	New York
5268	2950 W 35th St	Brooklyn
5270	1430 Amsterdam Ave	New York
5231	760 Park Ave	Brooklyn
5211	2263 Batchelder St	Brooklyn
5191	383 E 141st St Apt	Bronx
6153	281 E 143rd St	Bronx

	CBSA_NAME	CBSA_CODE \
5250	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5180	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5186	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5227	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5179	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5218	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5194	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5199	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5253	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5854	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5193	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5192	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5272	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5229	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5268	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5270	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5231	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0
5211	New York-Jersey City-White Plains, NY-NJ Metro...	35614.0

```
5191 New York-Jersey City-White Plains, NY-NJ Metro... 35614.0
6153 New York-Jersey City-White Plains, NY-NJ Metro... 35614.0
```

	COUNTY_NAME	COUNTY_CODE	STATE_NAME	STATE_CODE	ZIP	LATITUDE	\
5250	Bronx	5.0	NY	36	10455.0	40.814739	
5180	Kings	47.0	NY	36	11233.0	40.679268	
5186	Kings	47.0	NY	36	11231.0	40.676398	
5227	Queens	81.0	NY	36	11691.0	40.596459	
5179	Kings	47.0	NY	36	11212.0	40.667951	
5218	Bronx	5.0	NY	36	10462.0	40.835042	
5194	New York	61.0	NY	36	10039.0	40.830670	
5199	Kings	47.0	NY	36	11205.0	40.694668	
5253	Kings	47.0	NY	36	11207.0	40.655646	
5854	Bronx	5.0	NY	36	10459.0	40.822692	
5193	New York	61.0	NY	36	10011.0	40.742983	
5192	New York	61.0	NY	36	10029.0	40.794331	
5272	Kings	47.0	NY	36	11223.0	40.591368	
5229	New York	61.0	NY	36	10030.0	40.817457	
5268	Kings	47.0	NY	36	11224.0	40.574198	
5270	New York	61.0	NY	36	10027.0	40.816486	
5231	Kings	47.0	NY	36	11206.0	40.697965	
5211	Kings	47.0	NY	36	11229.0	40.597321	
5191	Bronx	5.0	NY	36	10454.0	40.811491	
6153	Bronx	5.0	NY	36	10451.0	40.814665	

	LONGITUDE	LOCATION_QUALITY	PHA_CODE	PHA_NAME	\
5250	-73.910338	R	NY005	New York City Housing Authority	
5180	-73.925917	R	NY005	New York City Housing Authority	
5186	-74.008879	R	NY005	New York City Housing Authority	
5227	-73.782176	R	NY005	New York City Housing Authority	
5179	-73.903626	R	NY005	New York City Housing Authority	
5218	-73.850561	R	NY005	New York City Housing Authority	
5194	-73.936477	R	NY005	New York City Housing Authority	
5199	-73.975223	R	NY005	New York City Housing Authority	
5253	-73.884266	R	NY005	New York City Housing Authority	
5854	-73.901647	R	NY005	New York City Housing Authority	
5193	-74.004700	R	NY005	New York City Housing Authority	
5192	-73.944991	R	NY005	New York City Housing Authority	
5272	-73.983861	R	NY005	New York City Housing Authority	
5229	-73.939407	R	NY005	New York City Housing Authority	
5268	-74.000773	R	NY005	New York City Housing Authority	
5270	-73.954260	R	NY005	New York City Housing Authority	
5231	-73.944942	R	NY005	New York City Housing Authority	
5211	-73.938161	R	NY005	New York City Housing Authority	
5191	-73.922498	4	NY005	New York City Housing Authority	
6153	-73.924180	R	NY005	New York City Housing Authority	

	INSPECTION_SCORE	INSPECTION_DATE
5250	59	2015-11-10
5180	58	2015-11-30
5186	58	2015-12-15
5227	58	2015-12-08
5179	57	2015-11-16
5218	57	2015-10-27
5194	57	2015-09-21
5199	56	2015-11-09
5253	56	2015-12-16
5854	56	2015-12-08
5193	55	2015-11-17
5192	55	2015-11-25
5272	54	2015-11-16
5229	54	2015-12-08
5268	52	2015-11-16
5270	49	2015-11-30
5231	45	2015-12-15
5211	43	2015-12-24
5191	42	2015-11-16
6153	33	2016-02-22

```
>>> df = nychaFail[nychaFail.tail(20)]
```

```
Traceback (most recent call last):
```

```
File "<stdin>", line 1, in <module>
```

```
File "/Users/LFHLFH/anaconda/lib/python3.5/site-packages/pandas/core/frame.py",
line 2055, in __getitem__
```

```
    return self._getitem_frame(key)
```

```
File "/Users/LFHLFH/anaconda/lib/python3.5/site-packages/pandas/core/frame.py",
line 2130, in _getitem_frame
```

```
raise ValueError('Must pass DataFrame with boolean values only')
```

```
ValueError: Must pass DataFrame with boolean values only
```

```
>>> df = nychaFail.tail(20)
```

```
>>> df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
```

```
Int64Index: 20 entries, 5250 to 6153
```

```
Data columns (total 19 columns):
```

```
INSPECTION_ID      20 non-null int64
```

```
DEVELOPMENT_ID     20 non-null object
```

```
DEVELOPMENT_NAME   20 non-null object
```

```
ADDRESS            20 non-null object
```

```
CITY               20 non-null object
```

```
CBSA_NAME          20 non-null object
```

```
CBSA_CODE          20 non-null float64
```

```
COUNTY_NAME        20 non-null object
```

```
COUNTY_CODE        20 non-null float64
```

```
STATE_NAME         20 non-null object
```

```
STATE_CODE         20 non-null int64
```

```
ZIP                20 non-null float64
```

```
LATITUDE           20 non-null float64
```

```
LONGITUDE          20 non-null float64
```

```
LOCATION_QUALITY     20 non-null object
```

```
PHA_CODE           20 non-null object
```

```
PHA_NAME           20 non-null object
```

```
INSPECTION_SCORE    20 non-null int64
```

```
INSPECTION_DATE     20 non-null datetime64[ns]
```

```
dtypes: datetime64[ns](1), float64(5), int64(3), object(10)
```

```
memory usage: 3.1+ KB
```

```
>>> df.head()
```

	INSPECTION_ID	DEVELOPMENT_ID	DEVELOPMENT_NAME	ADDRESS	\
5250	558218	NY005020930	SAINT MARY'S PARK	550 Cauldwell Ave	
5180	558138	NY005000650	BREV00RT	1839 Fulton St	
5186	558145	NY005000790	RED HOOK II	82 Dwight St	
5227	558189	NY005010980	OCEAN BAY (BAYSIDE)	441 Beach 51st St	
5179	558137	NY005000610	VAN DYKE I	414 Sutter Ave	

	CITY		CBSA_NAME	CBSA_CODE	\
5250	Bronx	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
5180	Brooklyn	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
5186	Brooklyn	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
5227	Queens	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
5179	Brooklyn	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	

	COUNTY_NAME	COUNTY_CODE	STATE_NAME	STATE_CODE	ZIP	LATITUDE	\
5250	Bronx	5.0	NY	36	10455.0	40.814739	
5180	Kings	47.0	NY	36	11233.0	40.679268	
5186	Kings	47.0	NY	36	11231.0	40.676398	
5227	Queens	81.0	NY	36	11691.0	40.596459	
5179	Kings	47.0	NY	36	11212.0	40.667951	

	LONGITUDE	LOCATION_QUALITY	PHA_CODE	PHA_NAME	\
5250	-73.910338		R	NY005 New York City Housing Authority	
5180	-73.925917		R	NY005 New York City Housing Authority	
5186	-74.008879		R	NY005 New York City Housing Authority	
5227	-73.782176		R	NY005 New York City Housing Authority	
5179	-73.903626		R	NY005 New York City Housing Authority	

	INSPECTION_SCORE	INSPECTION_DATE
5250	59	2015-11-10
5180	58	2015-11-30
5186	58	2015-12-15
5227	58	2015-12-08
5179	57	2015-11-16

```
>>> df.tail()
```

	INSPECTION_ID	DEVELOPMENT_ID	DEVELOPMENT_NAME	ADDRESS	\
5270	559662	NY005020810	MANHATTANVILLE	1430 Amsterdam Ave	
5231	558193	NY005011310	TOMPKINS	760 Park Ave	
5211	558170	NY005010360	NOSTRAND	2263 Batchelder St	
5191	558150	NY005001210	MOTT HAVEN	383 E 141st St Apt	
6153	565962	NY005000240	LESTER W. PATTERSON	281 E 143rd St	

	CITY		CBSA_NAME	CBSA_CODE	\
5270	New York	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
5231	Brooklyn	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
5211	Brooklyn	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	
5191	Bronx	New York-Jersey City-White Plains, NY-NJ Metro...		35614.0	

6153 Bronx New York-Jersey City-White Plains, NY-NJ Metro... 35614.0

	COUNTY_NAME	COUNTY_CODE	STATE_NAME	STATE_CODE	ZIP	LATITUDE	\
5270	New York	61.0	NY	36	10027.0	40.816486	
5231	Kings	47.0	NY	36	11206.0	40.697965	
5211	Kings	47.0	NY	36	11229.0	40.597321	
5191	Bronx	5.0	NY	36	10454.0	40.811491	
6153	Bronx	5.0	NY	36	10451.0	40.814665	

	LONGITUDE	LOCATION_QUALITY	PHA_CODE	PHA_NAME	\
5270	-73.954260	R	NY005	New York City Housing Authority	
5231	-73.944942	R	NY005	New York City Housing Authority	
5211	-73.938161	R	NY005	New York City Housing Authority	
5191	-73.922498	4	NY005	New York City Housing Authority	
6153	-73.924180	R	NY005	New York City Housing Authority	

	INSPECTION_SCORE	INSPECTION_DATE
5270	49	2015-11-30
5231	45	2015-12-15
5211	43	2015-12-24
5191	42	2015-11-16
6153	33	2016-02-22

```
>>> df.info()
<class 'pandas.core.frame.DataFrame'>
Int64Index: 20 entries, 5250 to 6153
Data columns (total 19 columns):
INSPECTION_ID      20 non-null int64
DEVELOPMENT_ID     20 non-null object
DEVELOPMENT_NAME    20 non-null object
ADDRESS            20 non-null object
CITY               20 non-null object
CBSA_NAME          20 non-null object
CBSA_CODE          20 non-null float64
COUNTY_NAME       20 non-null object
COUNTY_CODE       20 non-null float64
STATE_NAME         20 non-null object
STATE_CODE         20 non-null int64
ZIP                20 non-null float64
LATITUDE           20 non-null float64
LONGITUDE          20 non-null float64
LOCATION_QUALITY     20 non-null object
PHA_CODE           20 non-null object
PHA_NAME           20 non-null object
INSPECTION_SCORE   20 non-null int64
INSPECTION_DATE    20 non-null datetime64[ns]
dtypes: datetime64[ns](1), float64(5), int64(3), object(10)
memory usage: 3.1+ KB
```

```
>>> # find a way to map df to tdsut file.
```

...

```
>>> df.head(20)
```

	INSPECTION_ID	DEVELOPMENT_ID	DEVELOPMENT_NAME	\
5250	558218	NY005020930	SAINT MARY'S PARK	
5180	558138	NY005000650	BREVOORT	
5186	558145	NY005000790	RED HOOK II	
5227	558189	NY005010980	OCEAN BAY (BAYSIDE)	
5179	558137	NY005000610	VAN DYKE I	
5218	558177	NY005010670	JUSTICE SONIA SOTOMAYOR HOUSES	
5194	558153	NY005001490	POLO GROUNDS TOWERS	
5199	558158	NY005005140	WHITMAN	
5253	558224	NY005020950	LINDEN	
5854	565547	NY005013420	UNION AVE/E 163RD SITE 5	
5193	558152	NY005001360	ROBERT FULTON	
5192	558151	NY005001230	DE WITT CLINTON	
5272	559664	NY005020830	MARLBORO	
5229	558191	NY005011110	PS 139 RENAISSANCE	
5268	559660	NY005011720	GRAVESEND	
5270	559662	NY005020810	MANHATTANVILLE	
5231	558193	NY005011310	TOMPKINS	
5211	558170	NY005010360	NOSTRAND	
5191	558150	NY005001210	MOTT HAVEN	
6153	565962	NY005000240	LESTER W. PATTERSON	

	ADDRESS	CITY	\
5250	550 Cauldwell Ave	Bronx	
5180	1839 Fulton St	Brooklyn	
5186	82 Dwight St	Brooklyn	

5227	441 Beach 51st St	Queens
5179	414 Sutter Ave	Brooklyn
5218	2125 Glebe Ave	Bronx
5194	2931 8th Ave	New York
5199	117 N Oxford Walk	Brooklyn
5253	215 Cozine Ave	Brooklyn
5854	950 Union Ave	Bronx
5193	418 W 17th St	New York
5192	1760 Lexington Ave	New York
5272	29 Avenue W	Brooklyn
5229	120 W 140th St	New York
5268	2950 W 35th St	Brooklyn
5270	1430 Amsterdam Ave	New York
5231	760 Park Ave	Brooklyn
5211	2263 Batchelder St	Brooklyn
5191	383 E 141st St Apt	Bronx
6153	281 E 143rd St	Bronx

				CBSA_NAME	CBSA_CODE	\
5250	New York-Jersey	City-White Plains,	NY-NJ	Metro...	35614.0	
5180	New York-Jersey	City-White Plains,	NY-NJ	Metro...	35614.0	
5186	New York-Jersey	City-White Plains,	NY-NJ	Metro...	35614.0	
5227	New York-Jersey	City-White Plains,	NY-NJ	Metro...	35614.0	
5179	New York-Jersey	City-White Plains,	NY-NJ	Metro...	35614.0	
5218	New York-Jersey	City-White Plains,	NY-NJ	Metro...	35614.0	
5194	New York-Jersey	City-White Plains,	NY-NJ	Metro...	35614.0	
5199	New York-Jersey	City-White Plains,	NY-NJ	Metro...	35614.0	
5253	New York-Jersey	City-White Plains,	NY-NJ	Metro...	35614.0	
5854	New York-Jersey	City-White Plains,	NY-NJ	Metro...	35614.0	
5193	New York-Jersey	City-White Plains,	NY-NJ	Metro...	35614.0	
5192	New York-Jersey	City-White Plains,	NY-NJ	Metro...	35614.0	
5272	New York-Jersey	City-White Plains,	NY-NJ	Metro...	35614.0	
5229	New York-Jersey	City-White Plains,	NY-NJ	Metro...	35614.0	
5268	New York-Jersey	City-White Plains,	NY-NJ	Metro...	35614.0	
5270	New York-Jersey	City-White Plains,	NY-NJ	Metro...	35614.0	
5231	New York-Jersey	City-White Plains,	NY-NJ	Metro...	35614.0	
5211	New York-Jersey	City-White Plains,	NY-NJ	Metro...	35614.0	
5191	New York-Jersey	City-White Plains,	NY-NJ	Metro...	35614.0	
6153	New York-Jersey	City-White Plains,	NY-NJ	Metro...	35614.0	

	COUNTY_NAME	COUNTY_CODE	STATE_NAME	STATE_CODE	ZIP	LATITUDE	\
5250	Bronx	5.0	NY	36	10455.0	40.814739	
5180	Kings	47.0	NY	36	11233.0	40.679268	
5186	Kings	47.0	NY	36	11231.0	40.676398	
5227	Queens	81.0	NY	36	11691.0	40.596459	
5179	Kings	47.0	NY	36	11212.0	40.667951	
5218	Bronx	5.0	NY	36	10462.0	40.835042	
5194	New York	61.0	NY	36	10039.0	40.830670	
5199	Kings	47.0	NY	36	11205.0	40.694668	
5253	Kings	47.0	NY	36	11207.0	40.655646	
5854	Bronx	5.0	NY	36	10459.0	40.822692	
5193	New York	61.0	NY	36	10011.0	40.742983	
5192	New York	61.0	NY	36	10029.0	40.794331	
5272	Kings	47.0	NY	36	11223.0	40.591368	
5229	New York	61.0	NY	36	10030.0	40.817457	
5268	Kings	47.0	NY	36	11224.0	40.574198	
5270	New York	61.0	NY	36	10027.0	40.816486	
5231	Kings	47.0	NY	36	11206.0	40.697965	
5211	Kings	47.0	NY	36	11229.0	40.597321	
5191	Bronx	5.0	NY	36	10454.0	40.811491	
6153	Bronx	5.0	NY	36	10451.0	40.814665	

	LONGITUDE	LOCATION_QUALITY	PHA_CODE	PHA_NAME	\
5250	-73.910338	R	NY005	New York City Housing Authority	
5180	-73.925917	R	NY005	New York City Housing Authority	
5186	-74.008879	R	NY005	New York City Housing Authority	
5227	-73.782176	R	NY005	New York City Housing Authority	
5179	-73.903626	R	NY005	New York City Housing Authority	
5218	-73.850561	R	NY005	New York City Housing Authority	
5194	-73.936477	R	NY005	New York City Housing Authority	
5199	-73.975223	R	NY005	New York City Housing Authority	
5253	-73.884266	R	NY005	New York City Housing Authority	
5854	-73.901647	R	NY005	New York City Housing Authority	
5193	-74.004700	R	NY005	New York City Housing Authority	
5192	-73.944991	R	NY005	New York City Housing Authority	
5272	-73.983861	R	NY005	New York City Housing Authority	

5229	-73.939407	R	NY005	New York City Housing Authority
5268	-74.000773	R	NY005	New York City Housing Authority
5270	-73.954260	R	NY005	New York City Housing Authority
5231	-73.944942	R	NY005	New York City Housing Authority
5211	-73.938161	R	NY005	New York City Housing Authority
5191	-73.922498	4	NY005	New York City Housing Authority
6153	-73.924180	R	NY005	New York City Housing Authority

	INSPECTION_SCORE	INSPECTION_DATE
5250	59	2015-11-10
5180	58	2015-11-30
5186	58	2015-12-15
5227	58	2015-12-08
5179	57	2015-11-16
5218	57	2015-10-27
5194	57	2015-09-21
5199	56	2015-11-09
5253	56	2015-12-16
5854	56	2015-12-08
5193	55	2015-11-17
5192	55	2015-11-25
5272	54	2015-11-16
5229	54	2015-12-08
5268	52	2015-11-16
5270	49	2015-11-30
5231	45	2015-12-15
5211	43	2015-12-24
5191	42	2015-11-16
6153	33	2016-02-22

```
>>> # save df as Excel file, populate TDS codes, then reprocess file for tdslut
merge to x-ref with First FOIL Response csv file for stats.
```

```
...
```

```
>>> pd.DataFrame(df).to_excel('nychaFail-raw.xlsx', index=True)
```

```
>>> # add DEVELOPMENT_ID to tdslut file, as a back-up for x-ref purposes.
```

```
...
```

```
>>> tdsfile = r'/Applications/nychatest/NYCHATDSManual.xlsx'
```

```
>>> dtslut = pd.ExcelFile(tdsfile)
```

```
>>> tdslut = dtslut.parse('Sheet1')
```

```
Traceback (most recent call last):
```

```
File "<stdin>", line 1, in <module>
```

```
NameError: name 'tdslut' is not defined
```

```
>>> dtslut = dtslut.parse('Sheet1')
```

```
>>> tdslut = dtslut
```

```
>>> tdslut['TDS'] = tdslut['TDS'].apply(lambda x: '{0:0>5}'.format(x))
```

```
>>> tdslut['TDS_ID'] = tdslut.TDS.str[:3]
```

```
>>> tdslut.info()
```

```
<class 'pandas.core.frame.DataFrame'>
```

```
RangeIndex: 360 entries, 0 to 359
```

```
Data columns (total 15 columns):
```

TDS	360 non-null object
COMPLEX	360 non-null object
BOROUGH	349 non-null object
DEVELOPMENT_EDP	334 non-null float64
OPERATING_EDP	0 non-null float64
DEVELOPMENT_NY	25 non-null object
UNITS	339 non-null float64
BIN	0 non-null float64
M	0 non-null float64
SH	0 non-null float64
ADDRESS	0 non-null float64
ZIP	0 non-null float64
FACILITY	0 non-null float64
AMP	26 non-null object
TDS_ID	360 non-null object

```
dtypes: float64(9), object(6)
```

```
memory usage: 42.3+ KB
```

```
>>> tdslut = tdslut[tdslut.AMP.notnull()]
```

```
>>> tdslut.info()
```

```
<class 'pandas.core.frame.DataFrame'>
```

```
Int64Index: 26 entries, 41 to 331
```

```
Data columns (total 15 columns):
```

TDS	26 non-null object
COMPLEX	26 non-null object
BOROUGH	26 non-null object
DEVELOPMENT_EDP	26 non-null float64
OPERATING_EDP	0 non-null float64

```
DEVELOPMENT_NY      25 non-null object
UNITS                26 non-null float64
BIN                  0 non-null float64
M                    0 non-null float64
SH                   0 non-null float64
ADDRESS              0 non-null float64
ZIP                  0 non-null float64
FACILITY             0 non-null float64
AMP                  26 non-null object
TDS_ID               26 non-null object
dtypes: float64(9), object(6)
memory usage: 3.2+ KB
```

```
>>> tdslut.head()
```

	TDS	COMPLEX	BOROUGH	DEVELOPMENT_EDP	OPERATING_EDP	\
41	065.0	BREV00RT	BROOKLYN	213.0	NaN	
66	123.0	CLINTON	MANHATTAN	245.0	NaN	
115	136.0	FULTON	MANHATTAN	252.0	NaN	
124	068.0	GRAVESEND	BROOKLYN	225.0	NaN	
166	095.0	LINDEN	BROOKLYN	672.0	NaN	

	DEVELOPMENT_NY	UNITS	BIN	M	SH	ADDRESS	ZIP	FACILITY	AMP	\
41	NY005017	896.0	NaN	NaN	NaN	NaN	NaN	NaN	NY005000650	
66	NY005045	749.0	NaN	NaN	NaN	NaN	NaN	NaN	NY005001230	
115	NY005053	944.0	NaN	NaN	NaN	NaN	NaN	NaN	NY005001360	
124	NY005025	634.0	NaN	NaN	NaN	NaN	NaN	NaN	NY005011720	
166	NY005377	1586.0	NaN	NaN	NaN	NaN	NaN	NaN	NY005020950	

	TDS_ID
41	065
66	123
115	136
124	068
166	095

```
>>> tdslut.head(10)
```

	TDS	COMPLEX	BOROUGH	DEVELOPMENT_EDP	\
41	065.0	BREV00RT	BROOKLYN	213.0	
66	123.0	CLINTON	MANHATTAN	245.0	
115	136.0	FULTON	MANHATTAN	252.0	
124	068.0	GRAVESEND	BROOKLYN	225.0	
166	095.0	LINDEN	BROOKLYN	672.0	
174	081.0	MANHATTANVILLE	MANHATTAN	429.0	
175	296.0	MANHATTANVILLE REHAB (GROUP 2)	MANHATTAN	557.0	
176	297.0	MANHATTANVILLE REHAB (GROUP 3)	MANHATTAN	558.0	
182	083.0	MARLBORO	BROOKLYN	426.0	
199	121.0	MOTT HAVEN	BRONX	244.0	

	OPERATING_EDP	DEVELOPMENT_NY	UNITS	BIN	M	SH	ADDRESS	ZIP	\
41	NaN	NY005017	896.0	NaN	NaN	NaN	NaN	NaN	
66	NaN	NY005045	749.0	NaN	NaN	NaN	NaN	NaN	
115	NaN	NY005053	944.0	NaN	NaN	NaN	NaN	NaN	
124	NaN	NY005025	634.0	NaN	NaN	NaN	NaN	NaN	
166	NaN	NY005377	1586.0	NaN	NaN	NaN	NaN	NaN	
174	NaN	NY005378	1272.0	NaN	NaN	NaN	NaN	NaN	
175	NaN	NY005235	46.0	NaN	NaN	NaN	NaN	NaN	
176	NaN	NY005236	51.0	NaN	NaN	NaN	NaN	NaN	
182	NaN	NY005380	1765.0	NaN	NaN	NaN	NaN	NaN	
199	NaN	NY005044	993.0	NaN	NaN	NaN	NaN	NaN	

	FACILITY	AMP	TDS_ID
41	NaN	NY005000650	065
66	NaN	NY005001230	123
115	NaN	NY005001360	136
124	NaN	NY005011720	068
166	NaN	NY005020950	095
174	NaN	NY005020810	081
175	NaN	NY005010810	296
176	NaN	NY005010810	297
182	NaN	NY005020830	083
199	NaN	NY005001210	121

```
>>> tdslut.head(13)
```

	TDS	COMPLEX	BOROUGH	DEVELOPMENT_EDP	\
41	065.0	BREV00RT	BROOKLYN	213.0	
66	123.0	CLINTON	MANHATTAN	245.0	
115	136.0	FULTON	MANHATTAN	252.0	
124	068.0	GRAVESEND	BROOKLYN	225.0	
166	095.0	LINDEN	BROOKLYN	672.0	

174	081.0		MANHATTANVILLE	MANHATTAN	429.0
175	296.0		MANHATTANVILLE REHAB (GROUP 2)	MANHATTAN	557.0
176	297.0		MANHATTANVILLE REHAB (GROUP 3)	MANHATTAN	558.0
182	083.0		MARLBORO	BROOKLYN	426.0
199	121.0		MOTT HAVEN	BRONX	244.0
203	043.0		NOSTRAND	BROOKLYN	585.0
204	098.0		OCEAN BAY APARTMENTS (BAYSIDE)	QUEENS	571.0
205	051.0		OCEAN BAY APARTMENTS (OCEANSIDE)	QUEENS	573.0

	OPERATING_EDP	DEVELOPMENT_NY	UNITS	BIN	M	SH	ADDRESS	ZIP	\
41	NaN	NY005017	896.0	NaN	NaN	NaN	NaN	NaN	
66	NaN	NY005045	749.0	NaN	NaN	NaN	NaN	NaN	
115	NaN	NY005053	944.0	NaN	NaN	NaN	NaN	NaN	
124	NaN	NY005025	634.0	NaN	NaN	NaN	NaN	NaN	
166	NaN	NY005377	1586.0	NaN	NaN	NaN	NaN	NaN	
174	NaN	NY005378	1272.0	NaN	NaN	NaN	NaN	NaN	
175	NaN	NY005235	46.0	NaN	NaN	NaN	NaN	NaN	
176	NaN	NY005236	51.0	NaN	NaN	NaN	NaN	NaN	
182	NaN	NY005380	1765.0	NaN	NaN	NaN	NaN	NaN	
199	NaN	NY005044	993.0	NaN	NaN	NaN	NaN	NaN	
203	NaN	NY005268C	1148.0	NaN	NaN	NaN	NaN	NaN	
204	NaN	NY005244D	1395.0	NaN	NaN	NaN	NaN	NaN	
205	NaN	NY005244F	418.0	NaN	NaN	NaN	NaN	NaN	

	FACILITY	AMP	TDS_ID
41	NaN	NY005000650	065
66	NaN	NY005001230	123
115	NaN	NY005001360	136
124	NaN	NY005011720	068
166	NaN	NY005020950	095
174	NaN	NY005020810	081
175	NaN	NY005010810	296
176	NaN	NY005010810	297
182	NaN	NY005020830	083
199	NaN	NY005001210	121
203	NaN	NY005010360	043
204	NaN	NY005010980	098
205	NaN	NY005010980	051

```
>>> tdslut = tdslut[tdslut.TDS_ID != '051']
```

```
>>> tdslut.head(13)
```

	TDS	COMPLEX	BOROUGH	DEVELOPMENT_EDP	\
41	065.0	BREVOORT	BROOKLYN	213.0	
66	123.0	CLINTON	MANHATTAN	245.0	
115	136.0	FULTON	MANHATTAN	252.0	
124	068.0	GRAVESEND	BROOKLYN	225.0	
166	095.0	LINDEN	BROOKLYN	672.0	
174	081.0	MANHATTANVILLE	MANHATTAN	429.0	
175	296.0	MANHATTANVILLE REHAB (GROUP 2)	MANHATTAN	557.0	
176	297.0	MANHATTANVILLE REHAB (GROUP 3)	MANHATTAN	558.0	
182	083.0	MARLBORO	BROOKLYN	426.0	
199	121.0	MOTT HAVEN	BRONX	244.0	
203	043.0	NOSTRAND	BROOKLYN	585.0	
204	098.0	OCEAN BAY APARTMENTS (BAYSIDE)	QUEENS	571.0	
213	024.0	PATTERSON	BRONX	522.0	

	OPERATING_EDP	DEVELOPMENT_NY	UNITS	BIN	M	SH	ADDRESS	ZIP	\
41	NaN	NY005017	896.0	NaN	NaN	NaN	NaN	NaN	
66	NaN	NY005045	749.0	NaN	NaN	NaN	NaN	NaN	
115	NaN	NY005053	944.0	NaN	NaN	NaN	NaN	NaN	
124	NaN	NY005025	634.0	NaN	NaN	NaN	NaN	NaN	
166	NaN	NY005377	1586.0	NaN	NaN	NaN	NaN	NaN	
174	NaN	NY005378	1272.0	NaN	NaN	NaN	NaN	NaN	
175	NaN	NY005235	46.0	NaN	NaN	NaN	NaN	NaN	
176	NaN	NY005236	51.0	NaN	NaN	NaN	NaN	NaN	
182	NaN	NY005380	1765.0	NaN	NaN	NaN	NaN	NaN	
199	NaN	NY005044	993.0	NaN	NaN	NaN	NaN	NaN	
203	NaN	NY005268C	1148.0	NaN	NaN	NaN	NaN	NaN	
204	NaN	NY005244D	1395.0	NaN	NaN	NaN	NaN	NaN	
213	NaN	NY005216A	1791.0	NaN	NaN	NaN	NaN	NaN	

	FACILITY	AMP	TDS_ID
41	NaN	NY005000650	065
66	NaN	NY005001230	123
115	NaN	NY005001360	136
124	NaN	NY005011720	068
166	NaN	NY005020950	095

```

174      NaN NY005020810    081
175      NaN NY005010810    296
176      NaN NY005010810    297
182      NaN NY005020830    083
199      NaN NY005001210    121
203      NaN NY005010360    043
204      NaN NY005010980    098
213      NaN NY005000240    024

```

```
>>> tdslut.tail(13)
```

	TDS	COMPLEX	BOROUGH	DEVELOPMENT_EDP	\
213	024.0	PATTERSON	BRONX	522.0	
232	149.0	POLO GROUNDS TOWERS	MANHATTAN	260.0	
235	340.0	PUBLIC SCHOOL 139 (CONVERSION)	MANHATTAN	774.0	
243	004.0	RED HOOK EAST	BROOKLYN	202.0	
244	079.0	RED HOOK WEST	BROOKLYN	202.0	
261	093.0	SAINT MARY'S PARK	BRONX	673.0	
273	067.0	SOTOMAYOR HOUSES	BRONX	222.0	
299	131.0	TOMPKINS	BROOKLYN	246.0	
303	342.0	UNION AVENUE-EAST 163RD STREET	BRONX	753.0	
304	356.0	UNION AVENUE-EAST 166TH STREET	BRONX	768.0	
310	061.0	VAN DYKE I	BROOKLYN	216.0	
311	146.0	VAN DYKE II	BROOKLYN	257.0	
331	514.0	WHITMAN	BROOKLYN	509.0	

	OPERATING_EDP	DEVELOPMENT_NY	UNITS	BIN	M	SH	ADDRESS	ZIP	\
213	NaN	NY005216A	1791.0	NaN	NaN	NaN	NaN	NaN	
232	NaN	NY005062	1614.0	NaN	NaN	NaN	NaN	NaN	
235	NaN	NY005260	125.0	NaN	NaN	NaN	NaN	NaN	
243	NaN	NY005001	1411.0	NaN	NaN	NaN	NaN	NaN	
244	NaN	NaN	1480.0	NaN	NaN	NaN	NaN	NaN	
261	NaN	NY005384	1007.0	NaN	NaN	NaN	NaN	NaN	
273	NaN	NY005022	1497.0	NaN	NaN	NaN	NaN	NaN	
299	NaN	NY005046	1046.0	NaN	NaN	NaN	NaN	NaN	
303	NaN	NY005214	200.0	NaN	NaN	NaN	NaN	NaN	
304	NaN	NY005291	120.0	NaN	NaN	NaN	NaN	NaN	
310	NaN	NY005013	1603.0	NaN	NaN	NaN	NaN	NaN	
311	NaN	NY005055	112.0	NaN	NaN	NaN	NaN	NaN	
331	NaN	NY005213A	1659.0	NaN	NaN	NaN	NaN	NaN	

	FACILITY	AMP	TDS_ID
213	NaN	NY005000240	024
232	NaN	NY005001490	149
235	NaN	NY005011110	340
243	NaN	NY005000040	004
244	NaN	NY005000790	079
261	NaN	NY005020930	093
273	NaN	NY005010670	067
299	NaN	NY005011310	131
303	NaN	NY005013420	342
304	NaN	NY005013420	356
310	NaN	NY005000610	061
311	NaN	NY005011680	146
331	NaN	NY005005140	514

```
>>> tdslut = tdslut[tdslut.TDS_ID != '356']
```

```
>>> tdslut.tail(13)
```

	TDS	COMPLEX	BOROUGH	DEVELOPMENT_EDP	\
204	098.0	OCEAN BAY APARTMENTS (BAYSIDE)	QUEENS	571.0	
213	024.0	PATTERSON	BRONX	522.0	
232	149.0	POLO GROUNDS TOWERS	MANHATTAN	260.0	
235	340.0	PUBLIC SCHOOL 139 (CONVERSION)	MANHATTAN	774.0	
243	004.0	RED HOOK EAST	BROOKLYN	202.0	
244	079.0	RED HOOK WEST	BROOKLYN	202.0	
261	093.0	SAINT MARY'S PARK	BRONX	673.0	
273	067.0	SOTOMAYOR HOUSES	BRONX	222.0	
299	131.0	TOMPKINS	BROOKLYN	246.0	
303	342.0	UNION AVENUE-EAST 163RD STREET	BRONX	753.0	
310	061.0	VAN DYKE I	BROOKLYN	216.0	
311	146.0	VAN DYKE II	BROOKLYN	257.0	
331	514.0	WHITMAN	BROOKLYN	509.0	

	OPERATING_EDP	DEVELOPMENT_NY	UNITS	BIN	M	SH	ADDRESS	ZIP	\
204	NaN	NY005244D	1395.0	NaN	NaN	NaN	NaN	NaN	
213	NaN	NY005216A	1791.0	NaN	NaN	NaN	NaN	NaN	
232	NaN	NY005062	1614.0	NaN	NaN	NaN	NaN	NaN	
235	NaN	NY005260	125.0	NaN	NaN	NaN	NaN	NaN	
243	NaN	NY005001	1411.0	NaN	NaN	NaN	NaN	NaN	

244	NaN	NaN	1480.0	NaN	NaN	NaN	NaN	NaN
261	NaN	NY005384	1007.0	NaN	NaN	NaN	NaN	NaN
273	NaN	NY005022	1497.0	NaN	NaN	NaN	NaN	NaN
299	NaN	NY005046	1046.0	NaN	NaN	NaN	NaN	NaN
303	NaN	NY005214	200.0	NaN	NaN	NaN	NaN	NaN
310	NaN	NY005013	1603.0	NaN	NaN	NaN	NaN	NaN
311	NaN	NY005055	112.0	NaN	NaN	NaN	NaN	NaN
331	NaN	NY005213A	1659.0	NaN	NaN	NaN	NaN	NaN

	FACILITY	AMP	TDS_ID
204	NaN	NY005010980	098
213	NaN	NY005000240	024
232	NaN	NY005001490	149
235	NaN	NY005011110	340
243	NaN	NY005000040	004
244	NaN	NY005000790	079
261	NaN	NY005020930	093
273	NaN	NY005010670	067
299	NaN	NY005011310	131
303	NaN	NY005013420	342
310	NaN	NY005000610	061
311	NaN	NY005011680	146
331	NaN	NY005005140	514

```
>>> # 0.K., load csvFR1 ; see if I need to map TDS or if I can use AMP ?
```

```
...
>>> location = r'/Applications/nychatest/FR1/sr_withandwithout_workorder.csv'
>>> csvFR1 = pd.read_csv(location)
>>> csvFR1.info()
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 1483617 entries, 0 to 1483616
Data columns (total 18 columns):
FIRST_NAME      1483617 non-null object
LAST_NAME       1483617 non-null object
SR_CREATED      1483617 non-null object
SR_ID           1483617 non-null object
SR_NUM          1483617 non-null object
SR_TYPE         1483617 non-null object
SR_SUB_TYPE     1483617 non-null object
SR_STATUS       1483617 non-null object
CONTACT_ID      1483617 non-null object
UNIT_ID         1457428 non-null object
WORK_ORDER_NUM  1442584 non-null float64
LOCATION          1483617 non-null object
LOCATION_ID       1483617 non-null object
DESCRIPTION      1483617 non-null object
SCHEDULE_DATE   655321 non-null object
RESP_SCHEDULER  1437063 non-null object
PRIORITY        1457970 non-null float64
STATUS          1483617 non-null object
dtypes: float64(2), object(16)
memory usage: 203.7+ MB
>>> csvFR1.head()
```

	FIRST_NAME	LAST_NAME	SR_CREATED	SR_ID	SR_NUM	SR_TYPE	\
0	JULIANA	RIVAS	12/31/2009 00:48:10	1-1G4AWR	1-87540795	Complaint	
1	Antoinette	Clay	12/31/2009 00:06:42	1-1G2TNY	1-87471790	Complaint	
2	Myrna	Seda	12/31/2009 00:13:43	1-1G5Q23	1-87607083	Complaint	
3	Neida	Porras	12/31/2009 00:26:51	1-1G06WM	1-87348982	Complaint	
4	Jeanette	Vargas	12/31/2009 00:36:57	1-1G4AV0	1-87540732	Complaint	

	SR_SUB_TYPE	SR_STATUS	CONTACT_ID	UNIT_ID	WORK_ORDER_NUM	\
0	Maintenance Request	Closed	1-331-3036	1-3V1-1347	7918284.0	
1	Maintenance Request	Closed	1-4R8-3059	1-5EV-328	7915342.0	
2	Maintenance Request	Closed	1-8CA-37	1-KVL-41	7915818.0	
3	Maintenance Request	Closed	1-4SN-3128	1-5FM-1571	7916707.0	
4	Maintenance Request	Closed	1-4Q2-1138	1-5G4-1106	7917423.0	

	LOCATION	LOCATION_ID	DESCRIPTION	\
0	Apartment	083.24.024.F02.02E	Leak From Above - Constant Leaking	
1	Bathroom	030.07.007.F02.02J.BTH01	Leak From Above - Constant Leaking	
2	Kitchen	063.18.040.F02.02D.KIT01	Leak From Above - Constant Leaking	
3	Bathroom	074.15.015.F08.08G.BTH01	Sink - Stoppage With Flooding	
4	Bathroom	100.02.009.F19.19C.BTH01	Sink - Leak Under	

	SCHEDULE_DATE	RESP_SCHEDULER	PRIORITY	STATUS
0	NaN	SIEBEL	7.0	Closed
1	NaN	SIEBEL	7.0	Closed

```

2          NaN          SIEBEL          7.0  Closed
3          NaN          SIEBEL          7.0  Closed
4    01/11/2010          SIEBEL          3.0  Closed
>>> # Yes, I need to map out TDS within csvFR1, then map along NY number from
csvFR1 to tdslut to df.
...
>>> csvFR1['TDS_ID'] = csvFR1.LOCATION_ID.str[:3]
>>> # map site_name, borough, and ny number from tdslut to csvFR1.
...
>>> csvFR1['SITE_NAME'] = csvFR1.TDS_ID.map(tdslut.set_index('TDS_ID')['COMPLEX'])
>>> csvFR1['BOROUGH'] = csvFR1.TDS_ID.map(tdslut.set_index('TDS_ID')['BOROUGH'])
>>> csvFR1['AMP'] = csvFR1.TDS_ID.map(tdslut.set_index('TDS_ID')['AMP'])
>>> # Only those csvFR1 rows with a mapped AMP row are the valid rows I want to
inspect.
...
>>> csvMask = csvFR1[csvFR1.AMP.notnull()]
>>> csvMask.info()
<class 'pandas.core.frame.DataFrame'>
Int64Index: 206840 entries, 0 to 1483606
Data columns (total 22 columns):
FIRST_NAME      206840 non-null object
LAST_NAME       206840 non-null object
SR_CREATED      206840 non-null object
SR_ID           206840 non-null object
SR_NUM          206840 non-null object
SR_TYPE         206840 non-null object
SR_SUB_TYPE     206840 non-null object
SR_STATUS       206840 non-null object
CONTACT_ID      206840 non-null object
UNIT_ID         203398 non-null object
WORK_ORDER_NUM  200788 non-null float64
LOCATION          206840 non-null object
LOCATION_ID       206840 non-null object
DESCRIPTION      206840 non-null object
SCHEDULE_DATE   92253 non-null object
RESP_SCHEDULER  200007 non-null object
PRIORITY        203024 non-null float64
STATUS          206840 non-null object
TDS_ID          206840 non-null object
SITE_NAME       206840 non-null object
BOROUGH         206840 non-null object
AMP             206840 non-null object
dtypes: float64(2), object(20)
memory usage: 36.3+ MB
>>> print (206840 / 1483617)
0.13941603527055837
>>> # inspect data
...
>>> df_inspect_amp = df['AMP'].unique()
Traceback (most recent call last):
  File "/Users/LFHLFH/anaconda/lib/python3.5/site-
packages/pandas/indexes/base.py", line 2134, in get_loc
    return self._engine.get_loc(key)
  File "pandas/index.pyx", line 139, in pandas.index.IndexEngine.get_loc
(pandas/index.c:4443)
  File "pandas/index.pyx", line 161, in pandas.index.IndexEngine.get_loc
(pandas/index.c:4289)
  File "pandas/src/hashtable_class_helper.pxi", line 732, in
pandas.hashtable.PyObjectHashTable.get_item (pandas/hashtable.c:13733)
  File "pandas/src/hashtable_class_helper.pxi", line 740, in
pandas.hashtable.PyObjectHashTable.get_item (pandas/hashtable.c:13687)
KeyError: 'AMP'

```

During handling of the above exception, another exception occurred:

```

Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
  File "/Users/LFHLFH/anaconda/lib/python3.5/site-packages/pandas/core/frame.py",
line 2059, in __getitem__
    return self._getitem_column(key)
  File "/Users/LFHLFH/anaconda/lib/python3.5/site-packages/pandas/core/frame.py",
line 2066, in _getitem_column
    return self._get_item_cache(key)
  File "/Users/LFHLFH/anaconda/lib/python3.5/site-
packages/pandas/core/generic.py", line 1386, in _get_item_cache
    values = self._data.get(item)

```

```

File "/Users/LFHLFH/anaconda/lib/python3.5/site-
packages/pandas/core/internals.py", line 3541, in get
loc = self.items.get_loc(item)
File "/Users/LFHLFH/anaconda/lib/python3.5/site-
packages/pandas/indexes/base.py", line 2136, in get_loc
return self._engine.get_loc(self._maybe_cast_indexer(key))
File "pandas/index.pyx", line 139, in pandas.index.IndexEngine.get_loc
(pandas/index.c:4443)
File "pandas/index.pyx", line 161, in pandas.index.IndexEngine.get_loc
(pandas/index.c:4289)
File "pandas/src/hashtable_class_helper.pxi", line 732, in
pandas.hashtable.PyObjectHashTable.get_item (pandas/hashtable.c:13733)
File "pandas/src/hashtable_class_helper.pxi", line 740, in
pandas.hashtable.PyObjectHashTable.get_item (pandas/hashtable.c:13687)
KeyError: 'AMP'

```

```

>>> df.info()
<class 'pandas.core.frame.DataFrame'>
Int64Index: 20 entries, 5250 to 6153
Data columns (total 19 columns):
INSPECTION_ID      20 non-null int64
DEVELOPMENT_ID     20 non-null object
DEVELOPMENT_NAME   20 non-null object
ADDRESS            20 non-null object
CITY               20 non-null object
CBSA_NAME          20 non-null object
CBSA_CODE          20 non-null float64
COUNTY_NAME       20 non-null object
COUNTY_CODE       20 non-null float64
STATE_NAME         20 non-null object
STATE_CODE         20 non-null int64
ZIP               20 non-null float64
LATITUDE           20 non-null float64
LONGITUDE          20 non-null float64
LOCATION_QUALITY     20 non-null object
PHA_CODE           20 non-null object
PHA_NAME           20 non-null object
INSPECTION_SCORE   20 non-null int64
INSPECTION_DATE    20 non-null datetime64[ns]
dtypes: datetime64[ns](1), float64(5), int64(3), object(10)
memory usage: 3.1+ KB

```

```

>>> df.head()
INSPECTION_ID DEVELOPMENT_ID DEVELOPMENT_NAME ADDRESS \
5250 558218 NY005020930 SAINT MARY'S PARK 550 Cauldwell Ave
5180 558138 NY005000650 BREVORT 1839 Fulton St
5186 558145 NY005000790 RED HOOK II 82 Dwight St
5227 558189 NY005010980 OCEAN BAY (BAYSIDE) 441 Beach 51st St
5179 558137 NY005000610 VAN DYKE I 414 Sutter Ave

```

```

CITY CBSA_NAME CBSA_CODE \
5250 Bronx New York-Jersey City-White Plains, NY-NJ Metro... 35614.0
5180 Brooklyn New York-Jersey City-White Plains, NY-NJ Metro... 35614.0
5186 Brooklyn New York-Jersey City-White Plains, NY-NJ Metro... 35614.0
5227 Queens New York-Jersey City-White Plains, NY-NJ Metro... 35614.0
5179 Brooklyn New York-Jersey City-White Plains, NY-NJ Metro... 35614.0

```

```

COUNTY_NAME COUNTY_CODE STATE_NAME STATE_CODE ZIP LATITUDE \
5250 Bronx 5.0 NY 36 10455.0 40.814739
5180 Kings 47.0 NY 36 11233.0 40.679268
5186 Kings 47.0 NY 36 11231.0 40.676398
5227 Queens 81.0 NY 36 11691.0 40.596459
5179 Kings 47.0 NY 36 11212.0 40.667951

```

```

LONGITUDE LOCATION_QUALITY PHA_CODE PHA_NAME \
5250 -73.910338 R NY005 New York City Housing Authority
5180 -73.925917 R NY005 New York City Housing Authority
5186 -74.008879 R NY005 New York City Housing Authority
5227 -73.782176 R NY005 New York City Housing Authority
5179 -73.903626 R NY005 New York City Housing Authority

```

```

INSPECTION_SCORE INSPECTION_DATE
5250 59 2015-11-10
5180 58 2015-11-30
5186 58 2015-12-15
5227 58 2015-12-08
5179 57 2015-11-16

```

```

>>> df_inspect_amp = df['DEVELOPMENT_ID'].unique()

```



```

>>> len(df_inspect_amp)
20
>>> csv_inspect_amp = csvMask['AMP'].unique()
>>> len(csv_inspect_amp)
23
>>> # Ahhhh !
...
>>> extra_amp = []
>>> for item in csv_insect_amp:
...     if item not in df_inspect_amp:
...         extra_amp.append(item)
...
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
NameError: name 'csv_insect_amp' is not defined
>>> for item in csv_inspect_amp:
...     if item not in df_inspect_amp:
...         extra_amp.append(item)
...
>>> len(extra_amp)
3
>>> extra_amp
['NY005000040', 'NY005010810', 'NY005011680']
>>> # O.K. to remove rows corresponding to 3 extra_amp from csvMask
...
>>> csvMask = csvMask[csvMask.AMP != 'NY005000040']
>>> csvMask = csvMask[csvMask.AMP != 'NY005010810']
>>> csvMask = csvMask[csvMask.AMP != 'NY005011680']
>>> csvMask.info()
<class 'pandas.core.frame.DataFrame'>
Int64Index: 191743 entries, 0 to 1483606
Data columns (total 22 columns):
FIRST_NAME      191743 non-null object
LAST_NAME       191743 non-null object
SR_CREATED      191743 non-null object
SR_ID           191743 non-null object
SR_NUM          191743 non-null object
SR_TYPE         191743 non-null object
SR_SUB_TYPE     191743 non-null object
SR_STATUS       191743 non-null object
CONTACT_ID      191743 non-null object
UNIT_ID         188514 non-null object
WORK_ORDER_NUM  186054 non-null float64
LOCATION          191743 non-null object
LOCATION_ID       191743 non-null object
DESCRIPTION      191743 non-null object
SCHEDULE_DATE   85643 non-null object
RESP_SCHEDULER  185333 non-null object
PRIORITY        188192 non-null float64
STATUS          191743 non-null object
TDS_ID          191743 non-null object
SITE_NAME       191743 non-null object
BOROUGH         191743 non-null object
AMP             191743 non-null object
dtypes: float64(2), object(20)
memory usage: 33.6+ MB
>>> csv_inspect_amp = csvMask['AMP'].unique()
>>> len(csv_inspect_amp)
20
>>> csv_inspect_amp
array(['NY005020830', 'NY005000240', 'NY005020930', 'NY005001210',
      'NY005000790', 'NY005005140', 'NY005020950', 'NY005010360',
      'NY005000610', 'NY005011720', 'NY005020810', 'NY005011310',
      'NY005010980', 'NY005000650', 'NY005001230', 'NY005001490',
      'NY005001360', 'NY005010670', 'NY005011110', 'NY005013420'], dtype=object)
>>> print(191743 / 1483617)
0.129240228441707
>>> csvSiteCounts = csvMask['SITE_NAME'].value_counts()
>>> csvSiteCounts
PATTERSON      17768
RED HOOK WEST   16613
VAN DYKE I      15718
LINDEN          13293
POLO GROUNDS TOWERS 12495
SOTOMAYOR HOUSES 12424
WHITMAN         11972

```

MANHATTANVILLE	11813
MARLBORO	10939
OCEAN BAY APARTMENTS (BAYSIDE)	10408
TOMPKINS	8612
SAINT MARY'S PARK	8443
NOSTRAND	7762
CLINTON	7726
MOTT HAVEN	6896
BREVOORT	5931
GRAVESEND	5622
FULTON	5545
UNION AVENUE-EAST 163RD STREET	1340
PUBLIC SCHOOL 139 (CONVERSION)	423

Name: SITE_NAME, dtype: int64

>>>